

**Determining volume flow esp. of gaseous medium through tube**

**Patent number:** DE19543331  
**Publication date:** 1997-05-22  
**Inventor:** HILGENSTOCK ACHIM DR ING (DE); HEINZ MATTHIAS DIPL ING (DE)  
**Applicant:** RUHRGAS AG (DE)  
**Classification:**  
- International: G01F1/66; G01P5/08; G01F25/00  
- european: G01F1/66; G01F1/66F  
**Application number:** DE19951043331 19951121  
**Priority number(s):** DE19951043331 19951121

**Report a data error here**

**Abstract of DE19543331**

The method uses numerical simulation on the sound path height. This is carried out for a multiple of specified volume flows, taking account of the tube configuration and the installation conditions. The associated theoretical transit times are determined from the simulated flow speed fields. The theoretical transit times for the forming of calibrating factors are set in relation with the specified volume flows. The calibrating factors assigned to the associated theoretical sound transit times are stored. A real sound transit time is measured and is compared with the stored theoretical sound transmit times, for the selection of the matching calibration factors. The sound path of two sound walls is selected, which are operated alternately as a sound transmitter and a sound receiver.

---

Data supplied from the **esp@cenet** database - Worldwide